

Amendments to the Claims

1. *(Cancelled)*

2. *(Cancelled)*

3. *(Currently Amended)* ~~The linear power amplifier as claimed in Claim 2;~~

A radio frequency (RF) linear power amplifier operating in an output frequency band, having an output transistor, said power amplifier comprising:

(a) a circuit means for generating a bias signal producing a quiescent current flowing through said output transistor of said RF power amplifier, said circuit means for generating a bias signal producing a quiescent current includes a differential transistor pair; and,

(b) a detector circuit means for detecting RF input to said amplifier and generating an output signal tracking said detected RF input, said output signal directly coupled to said circuit means for automatically modifying said bias signal and said quiescent current through said output transistor, whereby said quiescent current at said output stage is adjusted for reduced dissipation and increased linearity at all power output levels, said detector circuit means output signal being coupled directly to one side of said differential pair; and

~~further including~~ (c) a sliding bias circuit connected to another side of said differential pair for automatically modifying said quiescent current for an output stage amplifier according to said detected RF signal input.

4. *(Original)* The linear power amplifier as claimed in Claim 3, wherein the sliding bias circuit means includes means for automatically reducing the quiescent current for an output stage amplifier at power ranges below a certain power output threshold.

5. *(Currently Amended)* ~~The linear power amplifier as claimed in Claim 1;~~ The linear power amplifier as claimed in Claim 3, comprising first and second power output stages, wherein said detector circuit means detects RF input to said amplifier at said first output stage, for reducing said quiescent current at a second output stage.

6. (*Currently Amended*) ~~The linear power amplifier as claimed in Claim 1;~~ The linear power amplifier as claimed in Claim 3, further comprising means for further modifying said quiescent current at a second output stage under discrete voltage control.

7. (*Cancelled*)

8. (*Cancelled*)

9. (*Currently Amended*) ~~The communications device as claimed in Claim 7;~~
A communications device including a radio frequency (RF) linear power amplifier operating in an output frequency band, having an output transistor, said power amplifier comprising:

(a) a circuit means for generating a bias signal producing a quiescent current flowing through said output transistor of said RF power amplifier, said circuit means for generating a bias signal producing a quiescent current includes a differential transistor pair,;

(b) a detector circuit means for detecting RF input to said amplifier and generating an output signal tracking said detected RF input, said output signal directly coupled to said circuit means for automatically modifying said bias signal and said quiescent current through said output transistor, whereby said quiescent current at said output stage is adjusted for reduced dissipation and increased linearity at all power output levels, said detector circuit means output signal being coupled directly to one side of said differential pair; and

~~further including~~

(c) a sliding bias circuit connected to another side of said differential pair for automatically modifying said quiescent current for an output stage amplifier according to said detected,

10. (*Original*) The communications device as claimed in Claim 7, further comprising means for further modifying said quiescent current at a second output stage under discrete voltage control.

11. *(Cancelled)*

12. *(Cancelled)*

13. *(Cancelled)*

14. *(Currently Amended)* A sliding bias circuit for dynamically controlling quiescent current flowing through an output transistor of a linear power amplifier operating in an output frequency band, said linear power amplifier comprising

a circuit means for generating a bias signal producing a quiescent current flowing through said output transistor of said RF power amplifier, said sliding bias circuit comprising:

a detector circuit means for detecting RF input to said amplifier and generating an output signal tracking said detected RF input, said output signal directly coupled to said circuit means for automatically modifying said bias signal and said quiescent current through said output transistor, whereby said quiescent current at said output stage is adjusted for reduced dissipation and increased linearity at all power output levels; and

wherein said circuit means for generating a bias signal producing a quiescent current comprises a differential transistor pair, said detector circuit means output signal being coupled directly to one side of said differential pair.

wherein said linear power amplifier comprises first and second power output stages, wherein said detector circuit means detects RF input to said amplifier at said first output stage, for reducing said quiescent current at a second output stage; and
~~The sliding bias circuit as claimed in Claim 13;~~ wherein said second power output stage further includes means for further modifying said quiescent current at a second output stage under discrete voltage control.